

WHAT IS CLAIMED IS:

1. A composition comprising a substantially pure
exo β 1-4 Galactosidase obtainable from *Bacteroides*
fragilis.

2. A composition according to claim 1, wherein
the galactosidase is substantially free of
contaminating proteases.

3. A composition according to claim 1, wherein
the galactosidase is isolated by:

(i) obtaining a preparation from *Bacteroides*
fragilis;

(ii) incubating the preparation with a first
set of labelled oligosaccharide substrates;

(iii) determining the presence of galactosidase
activity; and

(iv) isolating and substantially purifying the
galactosidase.

4. A composition comprising a recombinant
galactosidase from *Bacteroides fragilis* wherein the
galactosidase is cloned by:

(a) isolating DNA from a organism which produces
the galactosidase;

(b) forming a gene library from the DNA of step
(a) in a recombinant host organism; and

(c) identifying recombinant clones of the second
organism having galactosidase activity.

5. A composition according to claim 4, wherein
step (c) further comprises the step of utilizing one

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or more substrates to identify recombinant clones having galactosidase activity.

6. A composition according to claim 1, wherein exoglycosidase is capable of cleaving a Gal β 1-4R linkage.